II. REMARKS

Request for Continued Examination

Pursuant to 37 C.F.R. 1.114, Applicant herewith submits a Request for Continued Examination (RCE) along with the required fee.

Amendments to the Claims

Claims 1-50 are canceled. Applicant submits new claim 51 to more particularly claim the novel aspects of the invention.

Support for New Claim 51

Support for "using a prioritization program, prioritizing a plurality of documents in accordance with a user assigned priority stored in a data hidden in the document" may be found in the specification, FIG. 3., page 6, lines 9-10, page 8, lines 11-12, page 8, line 18 to page 9 line 19.

Support for "using a classification program, separating each of the plurality of documents into a plurality of document pages each having a document page data hidden in the page, analyzing a document page data in each of the plurality of document pages to determine a required printer type, the plurality of document pages being from one of the plurality of documents, separating each of the plurality of document pages into a plurality of print jobs based on the required printer type for each document page, and sending each of the plurality of document pages to a type of printer based upon the document page data of each page" may be found in the specification page 6, lines 9 to 10, FIG. 4, page 10, line 1 to page 12, line 2.

Support for "responsive to a determination by the prioritization program that one of the plurality of documents is an earliest high priority document, sending the earliest high priority document to the classification program and instructing the classification program to suspend printing a currently printing document, and then resume printing the currently printing document,

and when the currently printing document is a high priority document, to finish printing the currently printing document and then print the earliest high priority document" may be found in the specification page 9, lines 4-12.

Support for "responsive to each of the plurality of document pages being printed by an appropriate printer, reassembling the document" may be found in the specification, page 5, lines 2-3, FIG. 8, page 22, line 3-4.

Allowability of New Claim 51

Applicant submits that new claim 51 is allowable because it is a novel combination of a prioritization program and a classification program where the prioritization program interrupts the operation of the classification program based upon a data hidden in the document that makes the document a high priority document. I

Applicant submits that new claim 51 is allowable because at least the following elements are not in the prior art:

- prioritizing a plurality of documents *in accordance with a user assigned priority stored in a data hidden in the document;*

- using a classification program, separating each of the plurality of documents into a plurality of document pages *each having a document page data hidden in the page, analyzing a document page data in each of the plurality of document pages to determine* .... each document page;

- sending each of the plurality of document pages to a type of printer *based upon the document page data of each page;*

- *responsive to a determination by the prioritization program that one of the plurality of documents is an earliest high priority document,*

- *sending the earliest high priority document to the classification program* and *instructing the classification program to suspend printing a currently printing document, and then resume printing the currently printing document,*

- *when the currently printing document is a high priority document, to finish printing the currently printing document and then print the earliest high priority document;*

- *responsive to each of the plurality of document pages being printed by an appropriate printer, reassembling the document.*

The Examiner stated that Suzuki teaches "queuing a plurality of documents in a priority queue." More specifically, the Examiner states that "acceptance-completion type sequential processing jobs are jobs that are sequential which is considered as prioritized job." New Claim 51 recites "prioritizing a plurality of documents in accordance with a user assigned priority stored in a data hidden in the document." Acceptance-completion type sequential processing of print jobs is not the same as "queuing a plurality of documents in a priority queue" (old claim) and not "in accordance with a user assigned priority stored in a data hidden in the document" Applicant uses the word priority according to its well-known meaning in the art. For example, the *IBM Dictionary of Computing*, McGraw Hill, 10th Ed. 1993 defines "priority" as "(1) a rank assigned to a task that determines its precedence in receiving system resources" and "(2) the relative significance of one job to other jobs in competing for allocation of resources." Thus, if a first job in a queue of jobs has higher priority than a second job in the queue, the first job will receive resources (e.g. get printed) before the second job, regardless of the order of the jobs in the queue.

In stark contrast, Suzuki's acceptance-completion type sequential processing does not involve a priority queue at all. "In the acceptance-completion type sequential processing, a document processing request is not issued until all of the documents which form the job are

received." Suzuki 1:51-54. In other words, if a print job includes multiple documents, the job will not be printed until all of the documents in the job are received. However, processing is still "sequential," i.e., "processing requests are issued in the order in which the documents are received." Suzuki 1:55-57.

In summary, acceptance-completion type sequential processing does not involve assigning priority to print jobs or documents. Instead, the jobs or documents are processed in the order in which they are received. In a priority queue, by contrast, documents are printed in order of priority, instead of the order in which the documents are received. Suzuki does not teach printing documents in order of priority as opposed to the order in which they are received. Accordingly, for at least this reason, Suzuki does not teach "queuing a plurality of documents in a priority queue."

The Examiner stated that Suzuki 17:9-13 teaches "a determination that one of the plurality of documents is a high priority document." However, as explained in (1A.) above, Suzuki does not teach prioritization of documents at all. Suzuki 17:1-13 merely teaches that, in acceptance-completion type sequential processing, if one or more documents in a print job has not been received, the print job is held in a spool queue pending receipt of all the documents in the job. The order of the print job in the spool queue (or any other queue) has nothing to do with the priority of the print job. Accordingly, for at least these reasons, Suzuki does not teach "a determination that one of the plurality of documents is a high priority document."

The Examiner states that Suzuki 17:9-26 teaches "responsive to a determination that one of the plurality of documents is a high priority document, interrupting the printing of another document." New claim 51 recites "responsive to a determination by the prioritization program that one of the plurality of documents is an earliest high priority document, sending the earliest

high priority document to the classification program and instructing the classification program to suspend printing a currently printing document, and then resume printing the currently printing document." As explained above, Suzuki does not teach prioritization of documents at all. Furthermore, Suzuki 17:9-26 merely teaches moving a print job to a pause queue if the print job is interrupted by, for example, system maintenance. This interruption is not "responsive to a determination that one of the plurality of documents is a high priority document" and is instead independent of any document priority. For at least these reasons, Suzuki does not teach or suggest "responsive to a determination by the prioritization program that one of the plurality of documents is an earliest high priority document, sending the earliest high priority document to the classification program and instructing the classification program to suspend printing a currently printing document, and then resume printing the currently printing document."

The Examiner states that Owa 4:66-5:25 teaches "determining a user-assigned priority of each of the plurality of documents." However, Owa 4:66-5:25 teaches a user assigning priority to various properties of <u>printers</u>, not to documents or print jobs. "[T]he condition items of color/monochrome, paper size, print resolution, double-sided print, print location, print speed, and remaining consumable amount and user-specified priority for each of the condition items are set as the printer selection conditions for each of the two users of user 1 and user 2." Owa 5:1-6. Thus, although Owa teaches determining a user-assigned priority of a printer, Owa does not teach determining a user-assigned priority of a document. At least for this reason, Owa does not teach "determining a user-assigned priority of each of the plurality of documents."

The Examiner states that Suzuki 17:31-36 teaches "printing the high priority document." As explained above, Suzuki does not teach prioritized documents in a priority queue. Therefore, Suzuki does not teach printing a high priority document. Suzuki 17:31-36 merely teaches that

Suzuki's job execution section includes a printer for printing documents. Printing documents in general is not the same as "printing the high priority document." As Suzuki does not teach prioritized documents in a priority queue, Suzuki does not teach this limitation of claims 1 and 17.

The Examiner states that Owa 7:23-47 teaches "resuming the printing of the suspended document after the high priority document has printed." New claim 51 recites "with a user assigned priority stored in a data hidden in the document." More specifically, the Examiner stated "note that if priority printing is proceeded, the printing of other print job gets delayed until the current job is completed." However, Owa 7:23-47 simply teaches automatically selecting the optimum printer for a document based on the performance specifications of a group of printers. In the example given in Owa, the optimum printer (PRN3) for user 1's document is already printing another document ("the first document"). Therefore, user 1's document gets delayed until the first document is finished printing. However, user 1's document had not been partially printed previously, and therefore it is not a "suspended document" (i.e. a document whose printing had been interrupted by the printing of a higher priority document) whose printing is resumed. Rather, its printing begins for the first time only after the first document is finished printing. Therefore, at least for these reasons, Owa 7:23-47 does not teach "resuming the printing of a suspended document" as required by claims 2 and 18.
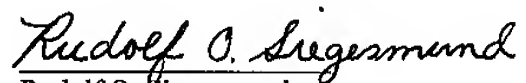
The Examiner stated that Christodoulou [0036] lines 9-16 teaches "analyzing a metadata in a plurality of document pages to determine a required printer type." New claim 51 recites "a user assigned priority stored in a data hidden in the document." However, Christodoulou [0036] lines 9-16 simply teaches selecting a printer based on "metadata in the job request." Metadata in a job request is not the same as "a data hidden in the document." This is a significant difference

because in the Christodoulou system, the entire job is sent to one printer based on the metadata of the job request. In an embodiment of the present invention, by contrast, individual pages of a document are sent to different printers based on the metadata in each page of the document. Thus, for at least this reason, Christodoulou [0036] lines 9-16 does not teach "analyzing a metadata in a plurality of document pages to determine a required printer type" as required by claims 3 and 19.

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Conclusion

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Applicant submits that new claim 51 is in condition for allowance.

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Respectfully submitted,

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